

Title (en)

USING MASK FABRICATION MODELS IN CORRECTION OF LITHOGRAPHIC MASKS

Title (de)

VERWENDUNG VON MASKENHERSTELLUNGSMODELLEN ZUR KORREKTUR VON LITHOGRAFISCHEN MASKEN

Title (fr)

UTILISATION DE MODÈLES DE FABRICATION DE MASQUE DANS LA CORRECTION DE MASQUES LITHOGRAPHIQUES

Publication

**EP 4055444 A1 20220914 (EN)**

Application

**EP 20811495 A 20201102**

Priority

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- US 2020058609 W 20201102

Abstract (en)

[origin: US2021132486A1] A lithography process is described by a design for a lithographic mask and a description of the lithography configuration, which may include the lithography source, collection/illumination optics, projection optics, resist, and/or subsequent fabrication steps. The actual lithography process uses a lithographic mask fabricated from the mask design, which may be different than the nominal mask design. A mask fabrication model models the process for fabricating the lithographic mask from the mask design. Typically, this is an electron-beam (e-beam) process, which includes e-beam exposure of resist on a mask blank, processing of the exposed resist to form patterned resist, and etching of the mask blank with the patterned resist. The mask fabrication model, usually in conjunction with other process models, is used to estimate a result of the lithography process. Mask correction is then applied to the mask design based on the simulation result.

IPC 8 full level

**G03F 1/36** (2012.01); **G03F 1/70** (2012.01); **G03F 1/78** (2012.01)

CPC (source: CN EP KR US)

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**G03F 7/70441** (2013.01 - US); **G03F 7/705** (2013.01 - CN EP US); **G03F 7/70625** (2013.01 - US); **H01L 21/0337** (2013.01 - US)

Citation (search report)

See references of WO 2021091838A1

Designated contracting state (EPC)

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Designated extension state (EPC)

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